ACN | Alerting and Coordination Network

ACN*Report*

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A National Security and Emergency Preparedness (NS/EP) Support Program of the National Communications System

In This Issue

DHS Ready for Preparedness Month

Throughout the month of September, the Department of Homeland Security (DHS) participated in National Preparedness Month, a series of events designed to emphasize the importance of emergency preparedness. DHS and other National Preparedness Month coalition partners promoted basic steps citizens can take to heighten awareness and prepare for disaster.

For instance, DHS expanded its *Ready* campaign, a national public education effort designed to teach individuals how to prepare for emergencies. At the same time, DHS introduced *Ready for Business* to educate small and medium-sized businesses about protecting employees and assets while preparing for continuity of business in the event of a disaster.

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Don Smith

The Man Behind Critical Telecom Restoration

Don Smith is no novice to leading teams that support telecommunications coordination and restoration for the Nation's critical communications networks. As manager of the National Coordinating Center (NCC) for Telecommunications within the Department of Homeland Security (DHS), Smith successfully helped support telecommunications restoration following the recent devastating destruction from hurricanes Charley, Francis, Gaston, Ivan and Jeanne. In addition, he maintained operational readiness in support of the Democratic and Republican National Conventions in preparation for the November presidential election. Smith's impressive resume also includes restoring communications after the tragedy of September 11, 2001, as well as after the 2003 Northeast power outage.

Don Smith, NCC Manager (right), discusses ACN activities with CDR Ray Emmerson, NCC Information Assurance Officer (left) and John O'Connor, NCC Operation Chief (center).

Smith has contributed immeasurably to the National Communications System (NCS) and the telecom industry since he joined the NCS in 1988 as the Program Manager of the National Telecommunications Coordinating Network (NTCN) under the National

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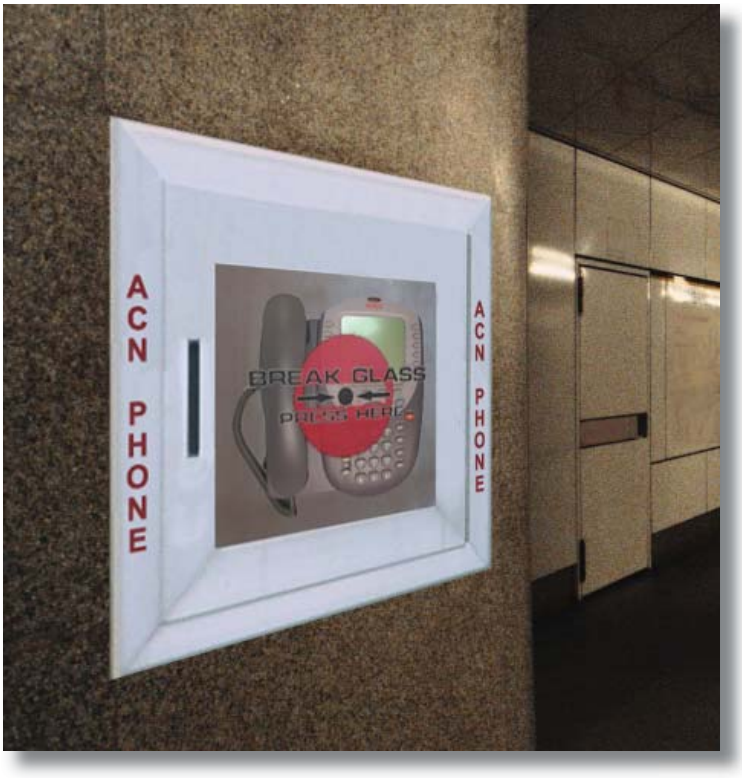
Breaking the Glass

Why Now is the Perfect Time to Learn the ACN Phone

You know your Alerting and Coordination (ACN) phone is there. Each day, you see it sitting in a secure network operations center or emergency operations office, but you're a bit apprehensive when it comes to ACN procedures. Sure, when the voice over Internet protocol (VoIP) phone rings, you answer it. But are you really all that familiar with the phone?

ACN is a private telecommunications network logically independent of the public switched network (PSN). Established more than 20 years ago, ACN provides stable emergency communications between critical Government and telecommunications industry operations centers in the event the PSN is inoperable, stressed or congested.

Yes, ACN exists as a communications fail-safe during times of strife. However, you don't have to wait for a crisis to pick up your phone. On the contrary, it's important to become familiar with the capabilities of ACN before disaster strikes.



Have no fear, go ahead and break the glass!

If you haven't done so already, you should create the voicemail message that will greet incoming calls when you are away from the phone. It's very important that you set up your voicemail, as part of that process involves selecting the password that you will later use to retrieve messages.

You should also be comfortable calling other ACN members. Unlike PSN calls, there are no area codes or three digit prefixes to dial. You can reach any member simply by entering a four digit extension. Network administrators distribute up-to-date user directories periodically via e-mail and these should be kept in close proximity to phones.

Conference calling is another network feature you need to know. ACN provides two different means of conference calling: the *Conference* button on the VoIP phone itself and the external conference bridge. Each method has its own procedures to learn, so please become familiar with each method. For further guidance on voicemail, conference calls and other phone operations, please consult the ACN User Manual.

ACN is an emergency network, so a working knowledge of the equipment is critical. Now is the time to become familiar with the phones, before a dire situation requiring emergency communication capabilities presents itself. Your VoIP phone – get to know it!

Preparedness *continued from page 1*

The Alerting and Coordination Network (ACN) contributed to National Preparedness Month in its own way. Ordinarily, network administrators call each ACN user individually every month to ensure optimum network performance. On September 20, however, administrators conducted a blast-out call in lieu of the individual ring-down tests. Utilizing ACN's conference bridge, administrators were able to call every ACN member simultaneously, much like they would in crisis situations requiring immediate communication. September marked the first time ACN had ever used the conference bridge in this manner.

PBX Security

The Key to Network Security, Part II

Cary Riddock
Security Consultant

In the last edition of the Alerting and Coordination (ACN) Report, we told you about the importance of private branch exchange (PBX) security. Packet networks such as ACN depend on a large number of configurable parameters, including the addresses of voice terminals, routers, firewalls and voice over Internet protocol-specific software such as call processing components and other programs that place and route calls. Because there are so many places in a network with dynamically-configurable parameters, intruders have a wide array of potentially vulnerable points to attack.

Recognizing this, ACN administrators maintain an aggressive security posture with regard to the ACN PBXs. ACN uses two Avaya PBXs, each located in a different datacenter and able to back the other one up. Each month, ACN administrators test the PBXs for critical faults. They check to ensure that online diagnostic results are satisfactory. They also review the history log and address any alarms. The results of these tests are recorded, analyzed and addressed in the monthly ACN test report.

Periodic security testing is important to ensure continued consistency with industry best practices. Twice a year, both PBXs undergo security audits. These audits, conducted by the PBX vendor under the supervision of ACN administrators, review the many parameters to make sure they remain set to the appropriate value. Administrators check the administrative logins to verify they comply with industry guidelines. They analyze ports to ensure the parameters are set for maximum protection. Administrators also take special measures to protect remote access; while it's important for administrators to be able to access the switch remotely, that opens the switch up to penetration from intruders, so they must install guards for protection. Administrators impose and monitor classes of restriction of the trunk groups to make sure that calls coming into the switch cannot dial back out.

As an additional protective measure, ACN also employs communications firewalls. Comprised of a hardware device and associated support devices, a communications firewall filters traffic between circuits connected to the public switched network (PSN) and the PBXs. The voice firewall sits between the PBX and the direct PSN external traffic lines, where it manages incoming and outgoing network communications by restricting accessibility to recognized users only.

As a critical component of ACN infrastructure, the PBX must be kept secure. While it is one of the most difficult network components to protect, the entire ACN team is taking great efforts to ensure PBX security.

Mr. Riddock provides network security consulting services for Arrowhead Global Solutions, under contract to the NCS.

Blast-Out Test

Taking Advantage of the New Conference Bridge

Alerting and Coordination Network (ACN) administrators recently changed the monthly test method to take advantage of ACN's newly expanded conferencing calling capability. Beginning in September, they replaced individual site ring-down tests with a conference call blast-out. A blast-out test allows administrators to simultaneously contact all members via ACN's conference bridge.

The procedure for receiving the blast-out test call is as follows. Your ACN phone rings, and when you answer, an automated voice instructs you to enter the personal identification number (PIN) previously provided by the ACN Program Manager. Once you enter your PIN, you will join the call and should officially announce your presence. You are then free to talk with anyone else in the conference and may exit the call at any time. Administrators generate a log at the end of the blast-out test that reports site participation.

This new monthly testing process is more efficient for administrators, and it better simulates calling procedures that would be followed in the event of an actual emergency.

***Smith** continued from page 1*

Telecommunications Management Structure. He also worked on the Shared Resources High Frequency Radio Program and lead NCC operations until his appointment as NCC Manager in March 2004.

Smith immediately recognized the great value of the Alerting and Coordination Network (ACN) when it transitioned to the NCS from the National Telecommunications Alliance in 2000. The ACN was one of the communications capabilities linked to the NTCN, which discontinued operations in 2001. Through the NTCN, Smith's responsibilities included collaborating with the NCC industry representatives to implement direct communications links between Federal Departments and Agencies and telecommunications carriers and equipment manufacturers during periods of widespread public network degradation or outages.

With the presence of ACN, the NCC has a backup means for coordinating telecommunications restoration. In a recent interview, Smith said, "The ACN is the NCC's telecommunications insurance policy. If the public switched network is inoperable, the NCC will rely on the ACN to coordinate and restore the critical communications backbone." Smith feels confident in ACN's ability to step in when needed, saying, "The NCC industry folks and the NCC are doing a great job testing the ACN each month."

Smith sees more daily use and exercises in ACN's future. "I would like to see ACN incorporated into the NCC's internal exercises," he said. "I also encourage the industry reps to use ACN for routine business when calling other NCC industry reps and the NCC Watch."

Smith plans to expand the ACN to all 37 NCC members by the end of 2005.

Did You Know?

The "#" symbol on your ACN phone is commonly referred to as "the pound sign" or "the number sign," but do you know its true name? It is actually called an "octothorpe." According to thefreedictionary.com, an octothorpe is "a typographic symbol having two vertical lines intersected by two horizontal lines." A simple enough concept, so what's with the fancy name?

The origin of the word "octothorpe" is up for debate. In cartography, it is a symbol for village, implying eight fields around a central square. But a more entertaining theory is that a telephone company supervisor wanted a new word to describe the symbol. Since it has eight points, "octo" was a natural choice. Then for fun, the supervisor added "thorpe," the last name of a prevalent Olympic athlete. Eventually, the term caught on with others, and "octothorpe" has since found its way into telephone company documents and other public places.

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Monthly Test
3rd Monday of the Month
10am - 2pm EST

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